

family. The haploid chromosome number of 20 seems to be common to one other genus, *Campsis* Lour. (Sax, 1933).

The chromosomes of *C. ovata* and *C. bignonioides* pair regularly and show no irregularities in any stage of the meiotic divisions or microspore formation. Both species are highly fertile, showing from 90–95% morphologically good pollen in counts of 2000 pollen grains. *Catalpa hybrida* exhibits a similar behavior. The chromosomes pair regularly at the first meiotic division and there is no evidence of lagging chromosomes or inversion bridges at either the first or second meiotic divisions. Neither is there any indication of polyploidy. The fertility of this hybrid corresponds to that of the parent species. These conclusions are based upon the examination of twenty-five metaphase and anaphase plates of each of the meiotic divisions for the species concerned.

The species *C. ovata* of eastern Asia and *C. bignonioides* of North America have evidently been isolated for a long period of time, and yet their chromosomes seem to have undergone no fundamental change in structure. There seems some reason to believe that a similar condition exists in the case of *C. ovata* and *C. speciosa*, for a cross made between these two species in the Arnold Arboretum in 1940 has set a quantity of well developed seed.

Among the reports of fertile  $F_1$  hybrids between geographically isolated species which have appeared in the literature are those of several hybrids between woody species. *Platanus acerifolia* (Ait.) Willd., a hybrid between *P. occidentalis* L. and *P. orientalis* L., shows complete chromosome pairing and segregation at meiosis accompanied by high fertility (Sax, 1933). *Larix eurolepis* Henry, the hybrid *L. leptolepis* (Sieb. and Zucc.) Gord. (= *L. Kaempferi* Sarg.)  $\times$  *L. decidua* Mill. represents a cross between a Japanese and an European species. A study of meiosis in this hybrid (Sax, 1932) shows almost complete pairing of the chromosomes with about 9% morphologically imperfect pollen as opposed to complete pairing and 2–3% morphologically imperfect pollen found in the parent species. In addition the average chiasma frequency is approximately the same in both parents and the hybrid. *Campsis Tagliabuana* (Vis.) Rehd., a hybrid between an Asiatic and a North American species, shows complete chromosome pairing but is partially sterile.

## LITERATURE CITED

- JONES, D. F. & W. O. FILLEY (1920). Teas' Hybrid Catalpa. *Jour. Hered.* **11**: 1-9.
- REHDER, A. (1940). *Manual of cultivated trees and shrubs*, Ed. 2. Macmillan Co., N. Y.
- SARGENT, C. S. (1889). A hybrid Catalpa. *Garden and Forest* **2**: 303-305.
- SAX, H. J. (1932). Chromosome pairing in *Larix* species. *Jour. Arnold Arb.* **13**: 368-373.
- SAX, K. (1933). Species hybrids in *Platanus* and *Campsis*. *Jour. Arnold Arb.* **14**: 274-278.
- SEWARD, A. C. (1931). *Plant life through the ages*. Macmillan Co., N. Y.
- TISCHLER, G. (1936). Pflanzliche Chromosomen — Zahlen. *Tabulae Biologicae* **12**: 57-115.

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A NOTE ON THE DATES OF PUBLICATION OF WIGHT'S  
"ICONES PLANTARUM INDIAE ORIENTALIS."

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THE basic information on the dates of issue of the various parts of this important work, consisting as it does of 2101 plates and accompanying descriptive text, is that supplied by Wight himself.\* In the preface to the last volume, dated January 20, 1853, he states that the last part was issued in March, 1853. Here he gives the year and the month of issue of most of the parts, and his data, which are frequently overlooked except by experienced bibliographers, are repeated below, for even Pritzels, "Thesaurus" ed. 2, 346, no. 10246. 1877, gives only the inclusive dates 1840-56 for the six volumes, although in the first edition of that work, 1851, p. 322, no. 11222, he does give the dates of publication of the first three volumes as **1**(1838-40), **2**(1842), and **3**(1843-47). Wight's data are repeated below, verbatim:

"Vol. I.	Nos. 2, 3, (Plates 21-60)	Sept. 1838.
	Nos. 4, 5, (61-100)	Nov. 1838.
	Nos. 6, 7, 8, (101-161)	June 1839.
	No. 9, (162-181)	Aug. 1839.
	No. 10, (182-201)	Sept. 1839.
	Nos. 11, 12, (202-241)	Nov. 1839.
	Nos. 13, 14, (242-279)	Feb. 1840.
	Nos. 15, 16, (280-318)	May 1840.
Vol. II.	(319-736)	1840-1843.
Vol. III.	Parts I. II. III. (737-1046)	1843 to Nov. 1845.
	Part IV. (1047-1162)	Sept. 1846.
Vol. IV.	Part I. (1163-1282)	Jan. 1848.
	Part II. (1283-1403)	Aug. 1848.
	Part III. (1404-1501)	Apr. 1849.
	Part IV. (1502-1621)	May 1850.
Vol. V.	Part I. Orchideae, (1622-1762)	May 1851.
	Part II. (1763-1920)	Jan. 1852.
Vol. VI.	(1921-2101)	Mar. 1853."

\*WIGHT, R. *Icones plantarum Indiae Orientalis* 6: viii. 1853.